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SPECIAL POINTS OF INTEREST:

- Next issue - retiree news! Special forum to learn what our retirees are doing and what their plans include.
- Also, in the next issue, our new County map is currently being reviewed and should be ready soon. The new, much anticipated map will be in an atlas format.
- We are always looking for pertinent and relevant news articles. Please contact the editing staff with your ideas.
- Deadline for next issue is April 30, 2004.

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The Earley Edition

Keith G. Earley, P.E., P.S.
Lucas County Engineer

ENGINEER'S MESSAGE

DEDICATED PUBLIC SERVANTS

Dedicated public employees do make our community a better place to live and work. The actions of many public employees at work and in the community indicate that they want to make a difference. Many give generously, volunteer as firemen, youth program coaches, serve in religious or civic organizations, or as you'll see below, donate items to show they care about the community. Dedicated workers who continuously try to find better ways to do their public service jobs do make a difference. Often individual efforts go unnoticed or unrecognized, yet their continued dedication shows that they take great pride in what they do and satisfaction in a job well done. To the many dedicated Lucas County Engineer's employees who work hard to make our community better, "Thank you for your efforts".

Touched by the Needs of Children



Michael Harmon - Night Watchman
at the Road Maintenance Garage

While watching the television news, Michael Harmon was touched by the story of a child waiting for an adoptive home. At the end of the story, aired on WTOL-TV (Ch. 11), Michael visited the station's web site. He clicked on a link that took him to the Friends of LCCS home page.

"I am not in the situation where I can adopt a child of my own," said Michael. "I was very pleased to find a way that can still be of help to the disadvantaged children in Lucas County."

Michael, a Lucas County Engineer employee at the maintenance garage, saw the Friends "Wish List" and was struck by the needs of children and the opportunity to make an impact. He read how many clients do not have the essentials for furnishing an apartment. He also remembered seeing that microwaves were on sale at a local department retailer. Shortly thereafter, Friends of LCCS received a donation of four brand new microwave ovens.

"I had been blessed with a small amount of overtime pay that I wanted to put to charitable use," said Michael. "One of the major reasons I decided to donate to (Friends) was that all of my money went directly to what I wanted it to."

Keith Robinson supervises the Children Services Independent Living staff, caseworkers responsible for preparing the agency's clients to live on their own. Each year, he watches many teenagers strike out on their own. "Most of them don't have the greatest cooking skills, so it's nice for them have a microwave to heat and re-heat prepared food," he said.

To find out how you can help, log on to www.friendsofkids.org.

Harvest Ditch Improvement

BRIAN W. MILLER

The Springfield Township Trustees, with assistance from the Lucas County Engineers Office, applied for and will receive a \$46,700 Community Development Block Grant for improving Harvest Ditch from Shrewsbury Drive to I-475. Phase I of this 3 Phase project involves enclosing part of the ditch with 60" conduit, and should be completed by June of 2004. The total cost estimate of Phase I is \$81,538.



Phase II is a proposed improvement inside the City of Toledo limits to enhance ditch flow, and Phase III proposes improvements in Springfield Township between Shrewsbury Drive and McCord Road. The Drainage Department is currently finalizing Phase I plans, and funding sources are being investigated by Springfield Township for Phase II and III.

Clean Water Act Phase II Regulations

To satisfy the requirements of the Clean Water Act and the Ohio EPA Phase II program, several communities in Lucas County submitted a "notice of intent" to prepare a Storm Water Management Plan. The communities that then formed a consortium were Jerusalem, Monclova, Spencer, Springfield, Washington, and Waterville Townships, the Villages of Holland and Waterville, and Lucas County.

The Lucas County Engineer's Office, along with other County offices, developed a plan that meets the six control measures required by Ohio EPA to help reduce pollutants from discharging in to storm water drainage systems. The plan was submitted and approved for coverage, and the six control measures addressed are: 1) public education and outreach, 2) public participation and involvement, 3) illicit discharge detection and elimination, 4) construction site runoff control, 5) post construction runoff control, and 6) pollution prevention and good housekeeping.

The Consortium will annually submit information to the Ohio EPA on the progress and activities in the plan and we will keep you posted on our progress in future issues.

Un-interruptible Power Supply at County Signals

RONALD MYERS

When power goes out in an area of the County, the traffic signals go dark and traffic problems begin. During both local and widespread blackouts, confusion can take over, especially at dark intersections. The County Engineer has taken steps to mitigate these possible traffic control problems in the event of power disruptions.

The Ohio Revised Code requires motorists to treat dark signals as multi-way stop intersections. However, during blackouts it is common to see motorists that disregard dark traffic signals by entering the intersection without stopping.

To address this safety problem, the Traffic Operations Department has installed Un-interruptible Power Supply (UPS) at several intersections. Those intersections include: Sylvania/King, Angola/Albon, Angola/Centennial, and Briarfield/Salisbury. UPSs are expected to keep traffic signals running up to 4 hours after a power failure. When the UPS batteries are depleted, the traffic signal will then go into flash mode for several more hours.

The use of UPS is now possible because of the installation of light emitting diode or LED traffic signals and pedestrian signals at all of the signalized intersections in Lucas County. Signals with standard incandescent light bulbs consume 500%

more power than LED signals, and LED signal heads can operate approximately 10 years without maintenance. The return on the initial cost of the LED signals in terms of energy consumption and labor to replace blown light bulbs will be made up in just two years.

The Lucas County Engineer maintains 28 traffic signals, 6 intersection flashers, and 13 school zone flashers. In 2004 we plan to install UPS at the following intersections: Angola/McCord, Bancroft/McCord, Centennial/Sylvania-Metamora, McCord/Hall/North Mall, and McCord/Sylvania. We will also be installing plugs for generators at these and other intersections to use when power is out and the UPS batteries are drained.



The UPS and LED projects are two more ways we are attempting to improve safety in our community.

Pavement Management

JEFF LOHSE

Since 1986, the Lucas County Engineers Office has utilized a pavement management system (PMS) to evaluate the pavement condition and performance of its 286-mile system. The PMS was developed in-house to be systematic and practical, yet provide quick, reliable data regarding the County Roads, and those portions of roads shared with other jurisdictions. At this time, a total of 301.399 miles of road are evaluated.

The system breaks up the road system into sections based on the road number, pavement composition, and location. The PMS number consists of the road number followed by the section number, which is in order of west to east or south to north. Usually a section is from intersection to intersection, however this varies if the pavement composition changes. Currently there are a total of 860 records or sections in the system. The system is currently computerized using *Microsoft Access* for database management.

Each section contains data in three categories:

1. General information includes the road name, limits, township, section length, average pavement width, pavement width, total pavement area, surface type, berm type, berm width, paved berm area, berm condition, typical shoulder widths, ADT history, legal speed limit, and right of way.
2. Condition information contains the visual pavement distress ratings that are associated with ride quality, structural defects, and other material, weather, or aging defects. The pavements are evaluated once every two years in which the distresses are recorded, and a maintenance category is assigned for each of the 860 sections.
3. Finally, construction and maintenance history information for a section is summarized. This includes the year of the work and what was done for the initial pavement composition, overlays, surface treatments, and widening. Also, miscellaneous pavement maintenance performed by maintenance crews is recorded.

This large database is used to develop the various roadwork programs such as, crack sealing, surface treatments, patching by our crews, resurfacing, widening and resurfacing, and reconstruction projects. Funding expenditure in all of these programs slows the overall failure rate of pavements. This allows available dollars to go further in maintaining the road system in good condition. In general, two-year programs are developed and a five-year program is estimated at the completion of the bi-annual field review. Determining project scope and the pursuit of funding can then

commence for the anticipated projects.

In addition, the data from the PMS allows monitoring the effectiveness of the repairs, resurfacings, and other treatments to evaluate cost benefit. Also, predictions of the failure rate of the pavement can be estimated.

The PMS has allowed the office to generate factual data regarding funding needs for the infrastructure maintained. The Ohio County Engineers Association has used this data to lobby for additional gas tax and revenue for the counties in Ohio. The PMS was also used to identify the need for the additional \$5 increase in license fees enacted by Lucas County in the late 80's. Recently, the database was used to determine the road systems value for the auditor to meet the federal GASB 34 requirements, which identifies infrastructure as an asset.

In 1986, 15% of our system required no work, 60% required minor maintenance such as crack seal, patching, surface treatments, or thin overlays, and the remaining 25% required structural overlays, widening and resurfacing, and/or reconstruction. These percentages could be misleading, since over the years the evaluation became more stringent placing roads into a resurfacing category sooner. The prevalent distress in 1986 was edge breakup, indicating narrow travel lanes and lack of shoulder stability. Through the widening and resurfacing projects and paved berm projects, this problem has been minimized.

Upon completion of the 2003 evaluation, 44% of the county road system requires no work, 34% minor maintenance, and 22% major maintenance. The average county road is 23 feet wide with an average daily traffic count of 1064 vehicles per day. Over 43% of the system or 130.041 miles has a paved shoulder. The Engineer maintains approximately 644.8 lane miles of pavement.

Our pavement management system is a useful tool used to identify condition and repair needs, and to evaluate the effectiveness of the repairs. The data enables decision-making to maximize the available funding, and therefore effectively work towards our goal of providing a quality county road system to the citizens of Lucas County.

SERVICE AWARDS

Service awards were presented to following employees for their years of service to the Lucas County Engineer's Office. Their dedication and hard work is greatly appreciated.



(Left to right—Mike Meyer, 31 years—Missy Dixon, 11 years—Jim O'Hearn, 26 Years—Chris Cornell, 20 years—Walt Harris, 15 years— Rick Stevens, 25 Years)

HUMAN RESOURCES

Many thanks to you for your generosity in the **2004 Employee Charitable Campaign**. You pledged or donated **\$7,836.50** this year. This is almost \$2,200.00 more than last year. You are not only generous, but so gracious about it. The community of Northwest Ohio surely benefits in so many ways thanks to you. **GOOD JOB!!!**
Barb Mahoney

Mark Shiple is now working from the downtown office and handling all permits (except oversize and overweight) and all OUPS mark-outs and requests.

EMPLOYEE PROFILE—MICHAEL C. MEYER, P.E.

Mike Meyer, Traffic and Planning Engineer, has been working for the Lucas County Engineer since 1972. Mike has seen many changes in the past 32 years and was hired as the first County "Traffic Engineer" when there were 3 traffic signals, 1 flasher, and 1 school zone flasher. Now there are 28 signals, 6 flashers

and 13 school zone flashers. Mike has Bachelor of Science and Master of Science Degrees in Civil Engineering from the University of Toledo and tentatively plans on retirement in 2005.

Mike and his department are responsible for reviewing all subdivision plats, all improvement plans, and all commercial site plans. The current list shows 150 projects at some phase of development and these developments usually require immediate review and approval, which can be very demanding. Mike works closely with the Planning Commission and Township Zoning Commissions and serves on various committees at TMACOG. The Traffic and Planning department, with help from Ron Myers, Doug Parrish, Gary Tucholski, Tina Richey, and Kyle Warner, is responsible for speed limit studies, traffic studies, speed humps, additional stop signs, new or revised traffic signals, paved shoulders and bike lanes, street lighting, permits, intersection improvement projects with turn lanes, guardrail projects, raised pavement markers, striping projects, and the hazard elimination program. They also review all sewer and water improvement plans that are constructed within the rights of ways and have also been working on the new access management regulations outlined on page 6.

He and his wife Judy, who is a 1st grade teacher at McKinley elementary, have three (3) children. Jeff, 24, is a graduate of the University of Michigan, Scott, 21, is majoring in mechanical engineering at Ohio State, and Meghan, 18, is a senior at Southview High School who plans on attending Ohio State next year. His hobbies include hunting, "romping" with the dog, reading, and attending sporting events.

Mike is involved in the Southview High School boosters "Cougar Club" and coached soccer, basketball, baseball, and softball in the Sylvania youth leagues for many years. He gets tremendous satisfaction from seeing the results from his years of coaching. He also enjoys dining at Seafood and Italian restaurants.

Mike's dedicated and exemplary service to our County is commendable and we appreciate his willingness and ability to fill such a difficult and important role with the Engineer's staff.

HAPPY BIRTHDAY to**JANUARY**

Meyer, Michael C.	2
Shiple, Mark J.	4
Bruss, Michael F.	18
Beers, Steven F.	20
Belinske, Ryan W.	22
Forgette, Kelly M.	22

FEBRUARY

O'Hearn, James C.	11
O'Boyle, Patrick M.	16
Smith, Jeffrey A.	17
Hall, James P.	26

MARCH

Linker, David M.	4
Sanecki, Wade V.	9
Dixon, Filomena M.	11
Mravec, Rudolph K.	14
Webb, Lebron D.	18
Revill, Mark A.	23
Shultz, Joseph E.	23
Tucholski, Gary J.	25

APRIL

Brinkman, Thomas E.	4
Mahoney, Barbara J.	9
Hanudel Jr., Richard A.	14
Marciniak, Sheila R.	15
Wittenberg, Lisa B.	16
Elinger, Paul E.	19
Parrish, Douglas J.	23
Durfey, David R.	26

The Adventures of Lucas

Scott Bernhardt

John Crandall was the winner of the \$20 gift certificate for the cartoon caption contest.

FLEET DEPARTMENT NEWS

SCOTT BERNHARD

Winter Meeting

The Maintenance Garage held it's annual winter meeting on December 4th and this years meeting had several highlights. New reflective neon-yellow safety vests were disseminated to all field personnel and a full day of informational meetings and demonstrations were held. Keith Earley was also on hand to give the "Engineer's Outlook" and to answer questions regarding future funding and budget concerns.

Flagging procedures were discussed during a morning session with a work zone demonstration conducted in the afternoon by Ron Myers and Jim Hall. New PVC flexible sign rods were displayed and proper traffic control placement and distances were explained. This was followed by a dry run of the revised snow control routes and a plow hook-up video and demonstration by Paul Elinger and Bob Myers. Salt brine manufacture and placement procedure were also covered.

A session regarding force account provisions in a newly passed law and question and answer periods were conducted followed by a buffet lunch. The day was a productive kick-off to reaching the goal of a safe and successful snow and ice control season.

Shoulder and Berm Reclamation

The berm maintenance crew utilized a piece of equipment called the "Tiger Claw" this fall to re-grade and restore berm stone rutted or kicked on to roadside shoulders. The disk type attachment to a tractor recycles existing material and reduces berm buildup which causes dangerous ruts and pooling water. The use of existing displaced berm material aides in roadside run-off and saves the time and cost of a full berm crew. The implement will be used again next spring and is another example of new methods to improve safety on County roads.



Ohio Public Works Commission

MARK DRENNEN

The Ohio Public Works Commission was created in 1987 to assist in financing local public infrastructure improvements under the State Capital Improvements Program (S.C.I.P.) and the Local Transportation Improvements Program (L.T.I.P.). These programs provide financial assistance to local communities for the improvement of roads, bridges, culverts, water supply systems, wastewater systems, storm water collection systems, and solid waste disposal facilities.

The Lucas County Engineer is the Chairman of the District 12 (Lucas County) Integrating Committee which evaluates and ranks applications for proposed projects. The County Engineer's Office is the administrative Agency for District 12 and acts as the liaison between the District and the Ohio Public Works Commission.

To date, the Office of the Lucas County Engineer has administered and distributed over \$143,000,000 to the various jurisdictions or political subdivisions in Lucas County for the construction of 329 projects. This translates into approximately \$256 million of immediate economic benefits, including wages and taxes, and 5,963 jobs. The aforementioned \$143,000,000 has been distributed over a 17 year period with an average allocation of \$8.5 million per year. Of this \$8.5 million, \$2.8 million is from L.T.I.P., (one cent per gallon), and the remainder is from S.C.I.P. (Bond Revenue). The authorization to issue bonds for infrastructure improvements statewide will expire after 2006. If this issue is not approved by the voters in November 2005, the only funds that will come to Lucas County will be the funds from the L.T.I.P. and the Revolving Loan Fund, for a total of approximately \$4 million.

Local political subdivisions have greatly benefited from this program, yet many infrastructure needs still exist. The loss of this revenue would severely reduce ability to make needed improvements. The campaign to renew Issue 2 or S.C.I.P. will begin in the latter part of 2004. It will include a letter campaign to our state legislators expressing how much this program has meant to the local jurisdictions.



The American, by nature, is optimistic. He is experimental, an inventor and a builder who builds best when called upon to build greatly.

John F. Kennedy

Access Management for County Highways

MIKE MEYER

House Bill 366 became effective October 24, 2002 and allows Counties and Townships to adopt access management regulations.

In general terms, access management is the regulation of traffic to and from highways to minimize disruption and conflicts with traffic movement. Specifically, access management is a program to coordinate and maintain safety and capacity of arterial and collector streets and also provide access to adjacent properties.

During the planning and design of access points along a corridor, access management can improve safety and access to properties at a relatively low cost. However, if access points occur with little planning or consideration of long term impacts, safety and capacity are degraded and remedies to correct problems are costly or impossible.

Elements of access management include:

- classification of highways based on their function
- techniques for access to properties consistent with the function of the highway
- access permit procedures

Benefits of access management include:

- fewer traffic crashes (over 50% of crashes are access related at drives or side streets)
- retaining increased capacity on the arterial and collector streets
- shorter and more efficient travel times for roadway users

Some of the techniques for access management include:

- right and left turn lanes and two-way left turn lanes
- frontage road, consolidated and shared drives
- turn restrictions at access points
- installation of median to control turn movements
- proper location and design of drives and side streets including access point spacing, signalization, connections to interval roads and parking

House Bill 366 includes detailed requirements for the establishment and enactment of access management regulations. Such regulations are adopted and under the control of the Board of Lucas County Commissioners. Input from citizens, business owners, and public agencies is required through a public hearing process and an appointed advisory committee.

The County Engineer initiated the planning process for consideration of access management regulations by sending a letter to the Board of County Commissioners who appointed a committee. The first meeting of the committee will be in March and the regulations should be in effect before January 1, 2005.

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*Engineering safety today
for a better tomorrow.*



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